

Project Antenn天线P2203项目天线测试报告

Antenna P2203 Project Antenna Test Reporta Test Report

客户：图高 Tu gao

项目名：P2203

射频：Zong Zhi Hui

手机MOBILE：18688717381

报告版次NO.：

Antenna P2203 Project Antenna Test Report

ANT Manufacturers: ANWEI commnuication Equipment Co.,Ltd

Address:2nd Floor, East Block, Building 5, Yifenghua Innovation
Industrial Park, Huaning Road, Dalang Street, Longhua District,
Shenzhen City, Guangdong Province

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项目调试简介Introduction to project
commissioning

项目调试简介Introduction to project commissioning

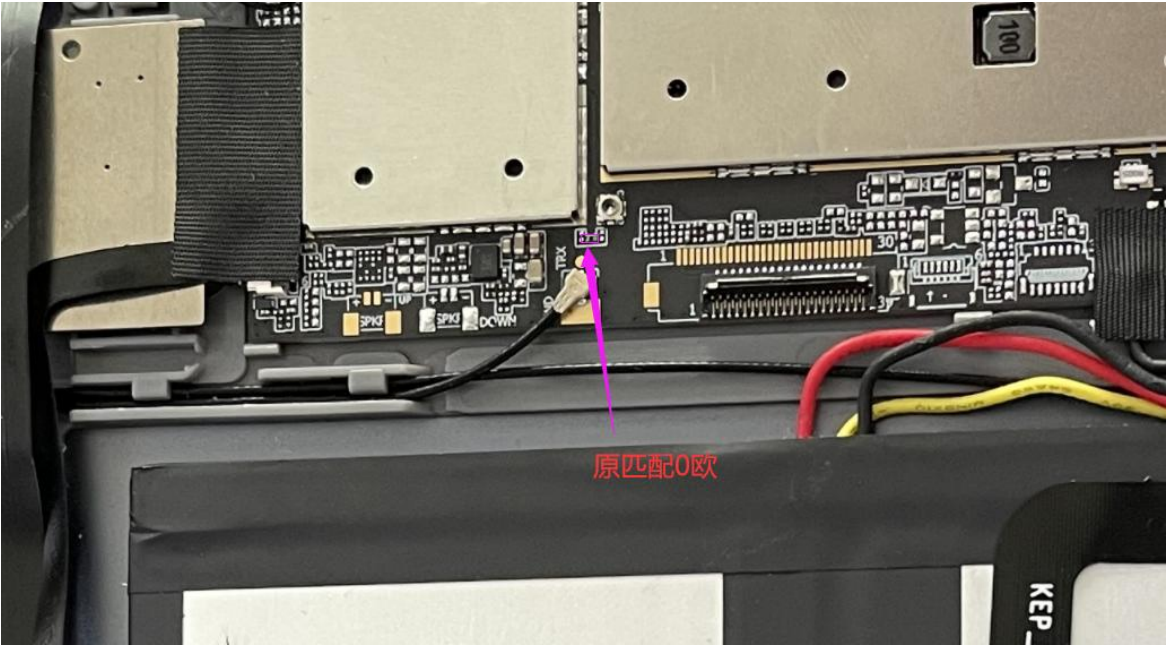
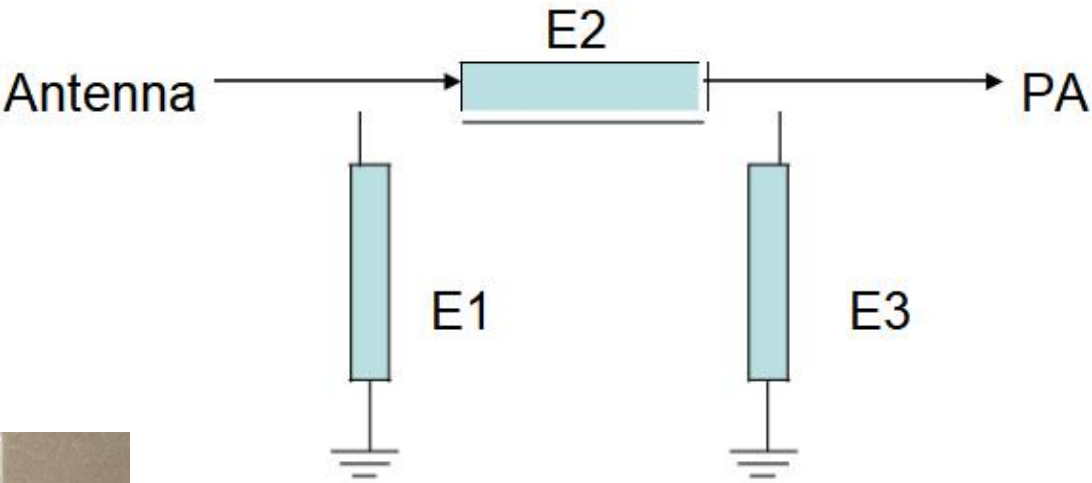


板型	整机mobile phone						
天线概况 Antenna overview	主天线 Main antenna	频段band		天线状态 Antenna status	天线形式 Antenna form	设计区域 Design area	匹配改动 Match Changes
		2G	GSM-B2/3/5/8	FPC	PIFA	底壳	无no
		3G	WCDMA-B1/2/5/8				
		4G	LTE-B1/2/3/5/7/8/12/17/20/28/38/40/41				
	其他天线 other antenna	BT/WIFI	2.4G/5.0	FPC	PIFA	底壳	无no
		GPS	1575.42MHz				无no
		分集LTE	同主集	FPC	PIFA	底壳	无no
样机状态 sample status	试产机 Trial production sample		环境处理 Environmental treatment				

报告版本提要Report Version Summary

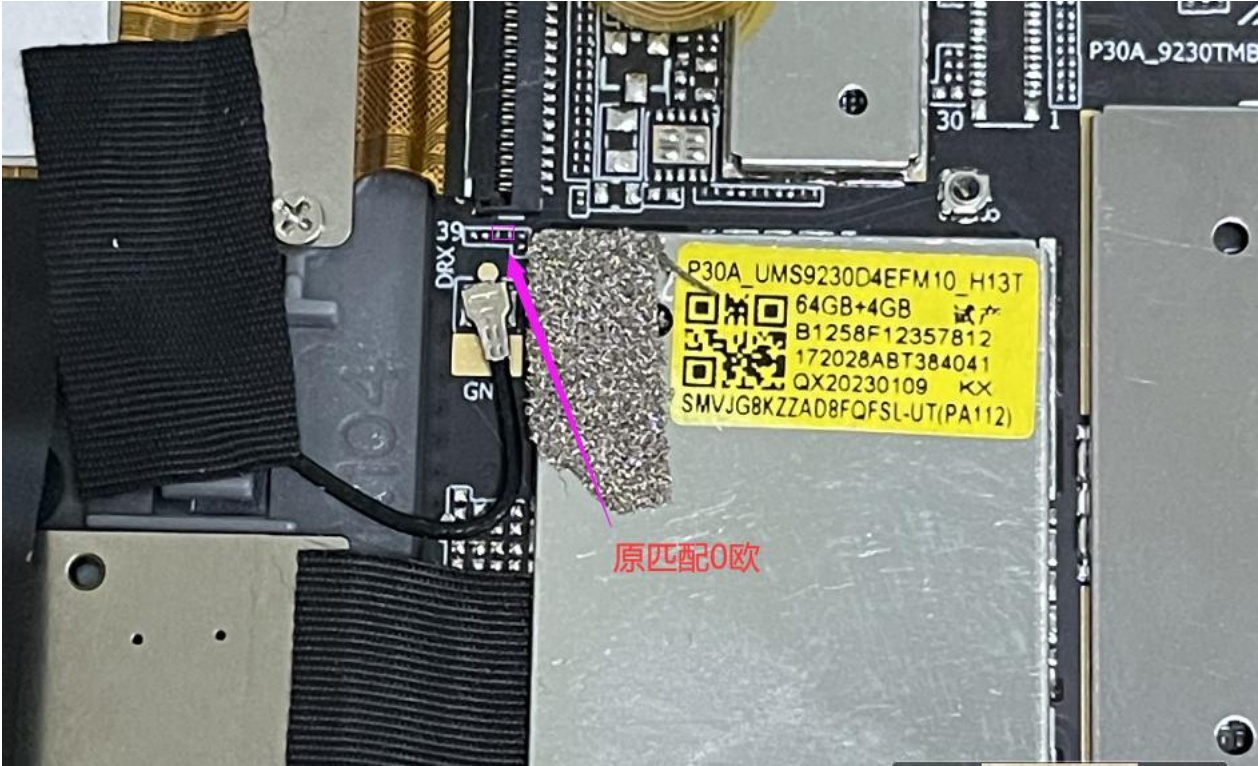
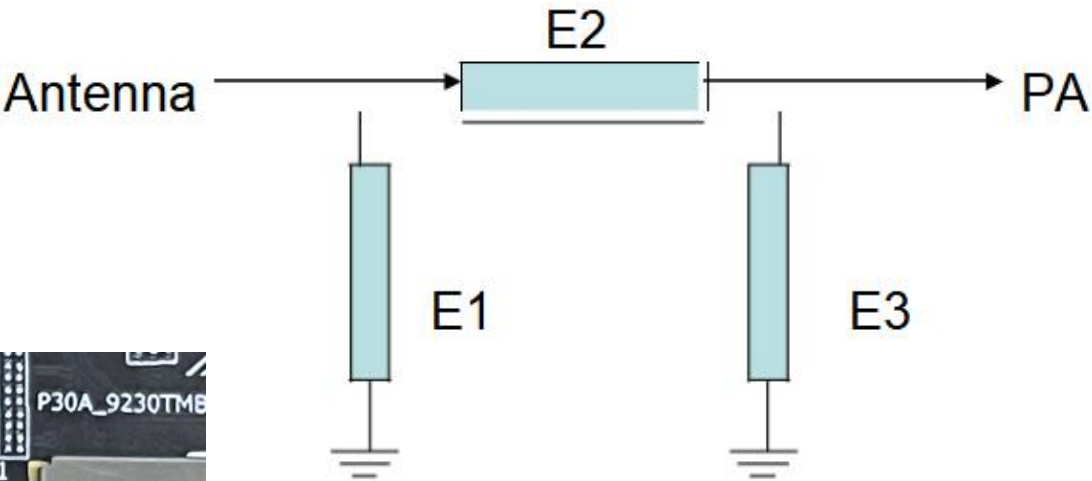
版本	日期	内容概况
V1	2023-03-17	客供原天线测试报告，主板型号：P30A_9230TMB_D4XEF_V1.0-20221017.01
V2	2023-03-28	样品天线测试报告，主板型号：P30A_9230TMB_D4XEF_V1.0-20221017.01
V3	2023-04-04	换屏后样品天线测试报告，主板型号：P30A_9230TMB_D4XEF_V1.0-20221017.01
V4	2023-04-20	焊点对调后样品天线测试报告，主板型号：P30A_9230TMB_D4XEF_V1.0-20221017.01
V5	2023-05-03	试产机天线测试报告，主板型号：P30A_9230TMB_D4XEF_V1.0-20221017.01
V6	2023-05-04	试产机整改环境处理天线测试报告，主板型号：P30A_9230TMB_D4XEF_V1.0-20221017.01

主天线匹配电路Main antenna matching circuit



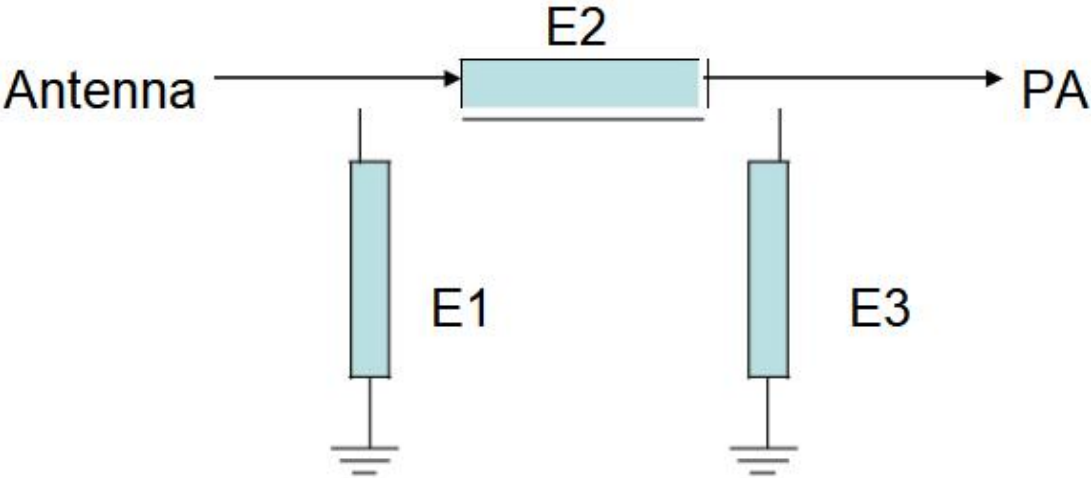
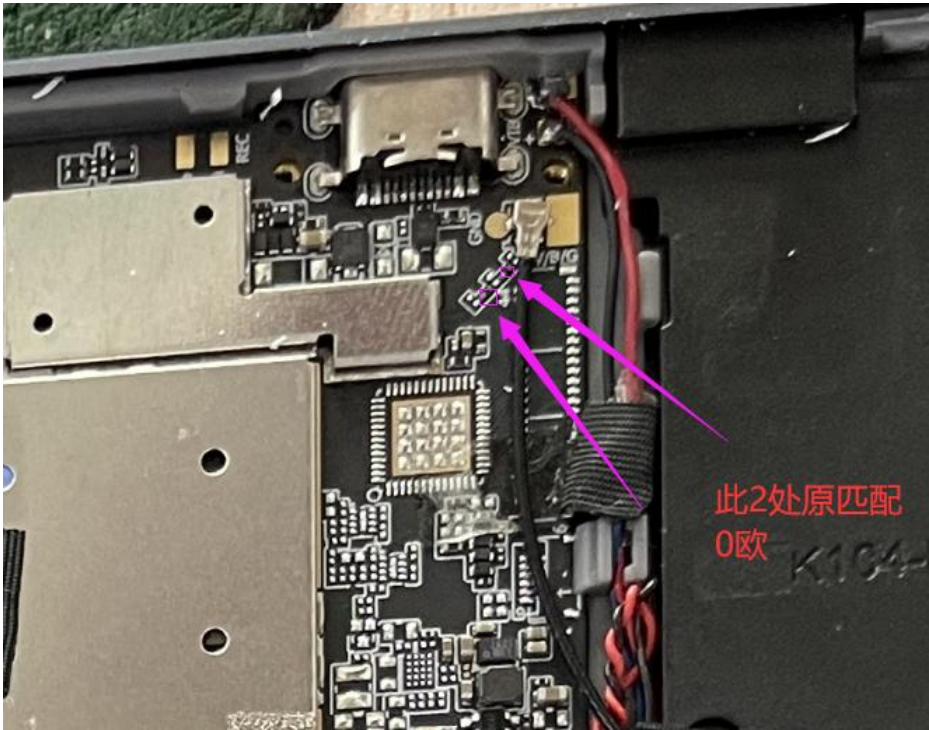
Element	Value
E1	NC
E2	0 Ω
E3	NC

分集天线匹配电路Diversity antenna
matching circuit



Element	Value
E1	NC
E2	0 Ω
E3	NC

GPS/WIFI/BT天线匹配电路GPS/WiFi/BT
antenna matching circuit



Element	Value
E1	NC
E2	0 Ω
E3	NC
E4	0 Ω
E5	NC

主天线暗室数据Main antenna darkroom data

2G	Channel	TRP (dBm)	TIS (dBm)		3G	Channel	TRP (dBm)	TIS (dBm)		4G	Channel	TRP (dBm)	TIS (dBm)
GSM850	CH 128	27.95			WCDMA-B1	CH 9612	16.00			FDD B1 (10M)	CH 18050	15.77	
	CH 190	27.68				CH 9750	15.37				CH 18300	16.09	
	CH 251	27.34	-104.00			CH 9888	16.17	-105.41			CH 18550	16.29	-91.62
GSM900	CH 1	25.55			WCDMA-B2	CH 9262	16.36			FDD B2 (10M)	CH 18650	16.59	
	CH 62	24.47				CH 9400	15.50				CH 18900	16.10	
	CH 124	23.63	-103.09			CH 9538	15.54	-103.67			CH 19150	16.05	-91.34
DCS1800	CH 512	25.27			WCDMA-B5	CH 4132	17.86			FDD B3 (10M)	CH 19250	17.64	
	CH 698	25.09				CH 4183	17.81				CH 19575	17.40	
	CH 885	24.49	-103.15			CH 4233	17.56	-104.00			CH 19900	16.85	-90.02
PCS1900	CH 512	23.48			WCDMA-B8	CH 2712	16.39			FDD B5 (10M)	CH 20450	17.83	
	CH 661	23.08				CH 2787	15.50				CH 20525	17.41	
	CH 810	22.72	-103.25			CH 2863	14.60	-103.15			CH 20600	17.23	-90.36
										FDD B7 (10M)	CH 20800	17.29	
											CH 21100	17.81	
											CH 21400	17.30	-91.05
										FDD B8 (10M)	CH 21500	16.59	
											CH 21625	16.06	
											CH 21750	15.57	-88.91

主天线暗室数据Main antenna darkroom data

4G	Channel	TRP（dBm）	TIS（dBm）
FDD B12 (10M)	CH 23060	15. 10	
	CH 23095	15. 69	
	CH 23130	15. 84	-90. 29
FDD B17 (10M)	CH 23780	16. 27	
	CH 23790	16. 26	
	CH 23800	16. 14	-90. 56
FDD B20 (10M)	CH 24200	17. 72	
	CH 24300	17. 39	
	CH 24400	17. 22	-90. 53
FDD B28A (10M)	CH 27260	15. 80	
	CH 27370	16. 39	
	CH 27469	16. 68	-90. 34
FDD B28B (10M)	CH 27410	15. 78	
	CH 27510	16. 56	
	CH 27600	16. 85	-90. 58
4G	Channel	TRP（dBm）	TIS（dBm）
LTE B38 (20M)	CH 37850	17. 29	
	CH 38000	17. 18	
	CH 38150	16. 22	-90. 97
LTE B40 (20M)	CH 38750	17. 25	
	CH 39150	17. 10	
	CH 39550	17. 24	-90. 77
LTE B41 (20M)			
	CH 40620	16. 88	-90. 38

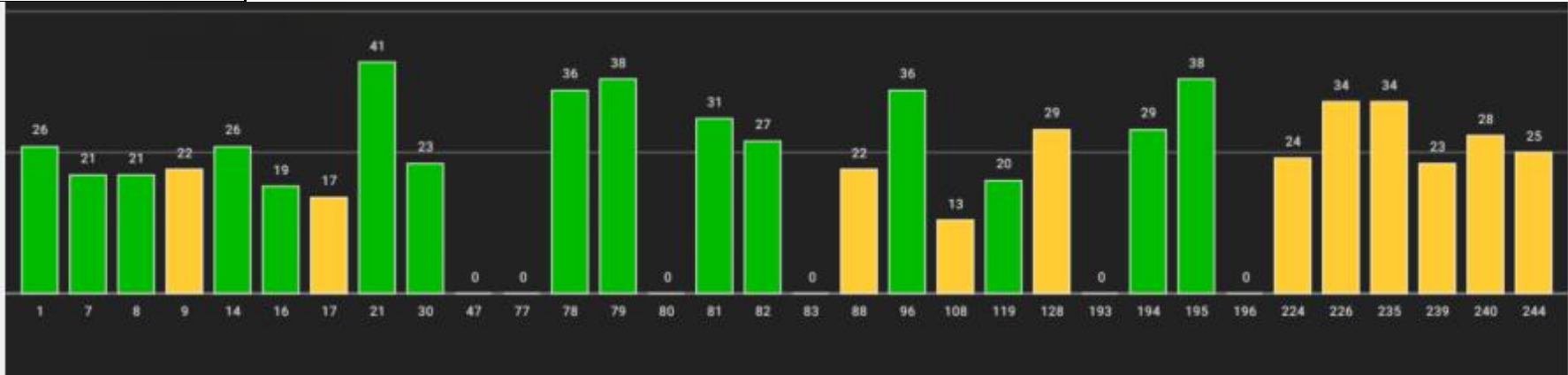
GPS实际测试结果 (actual test results)

 GPS天线实际测试效果:

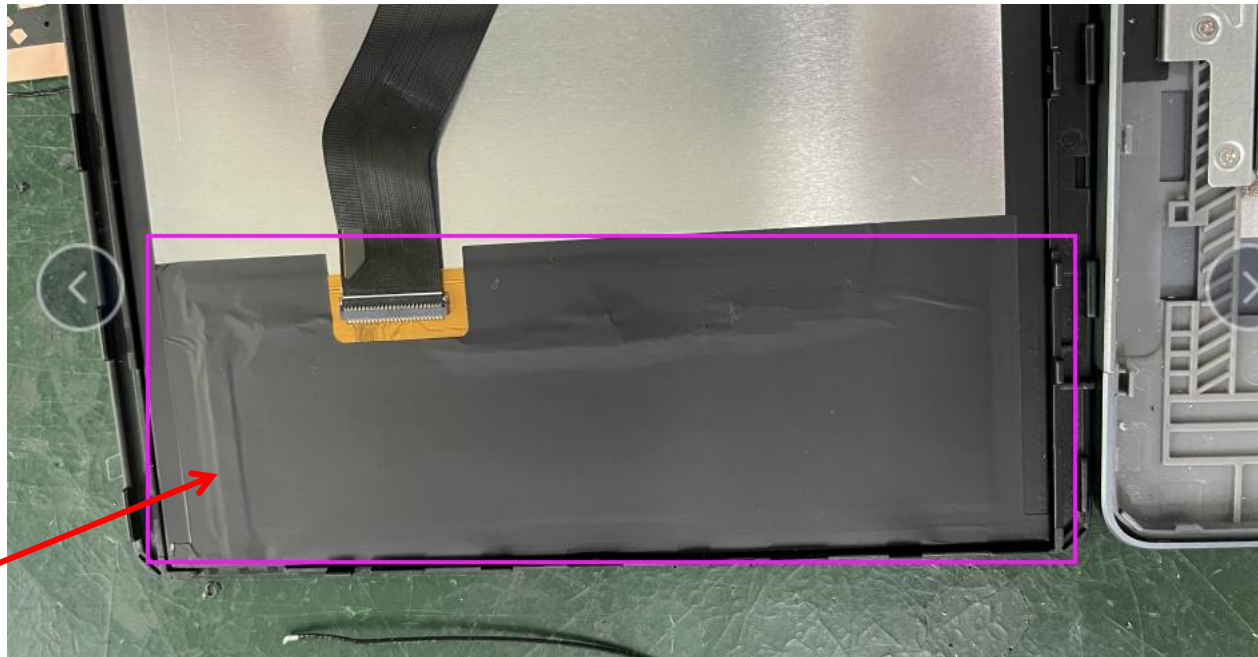
GPS antenna test result:

测试项Test items	测试结果Test result
搜星总数total	26
In use卫星数	15
最大SNR值	41
SNR≥40星数	1~2
冷启动定位时间time	58S

测试结论:ok。



环境处理environmental treatment

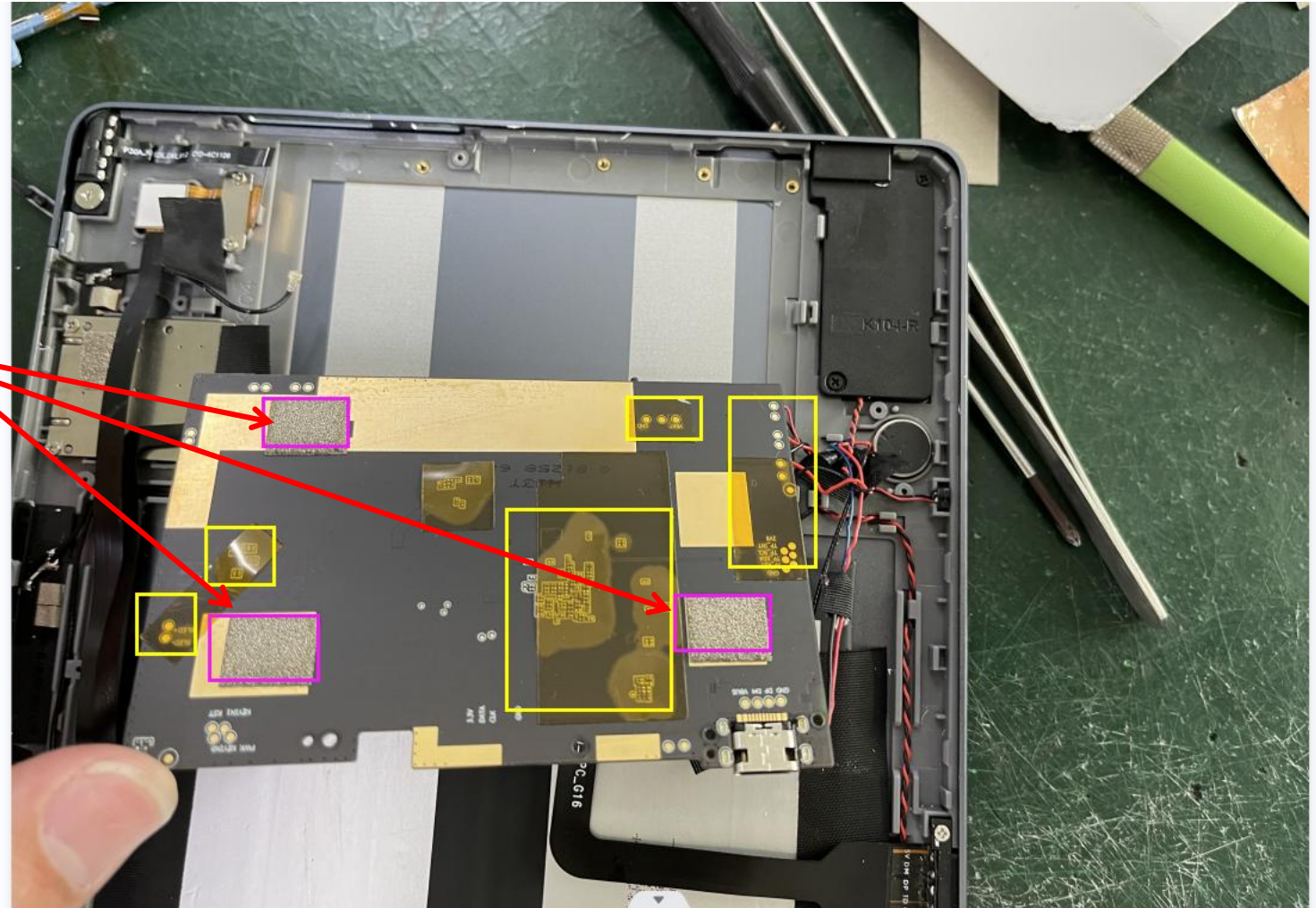


如图所示：屏原处理。

环境处理environmental treatment

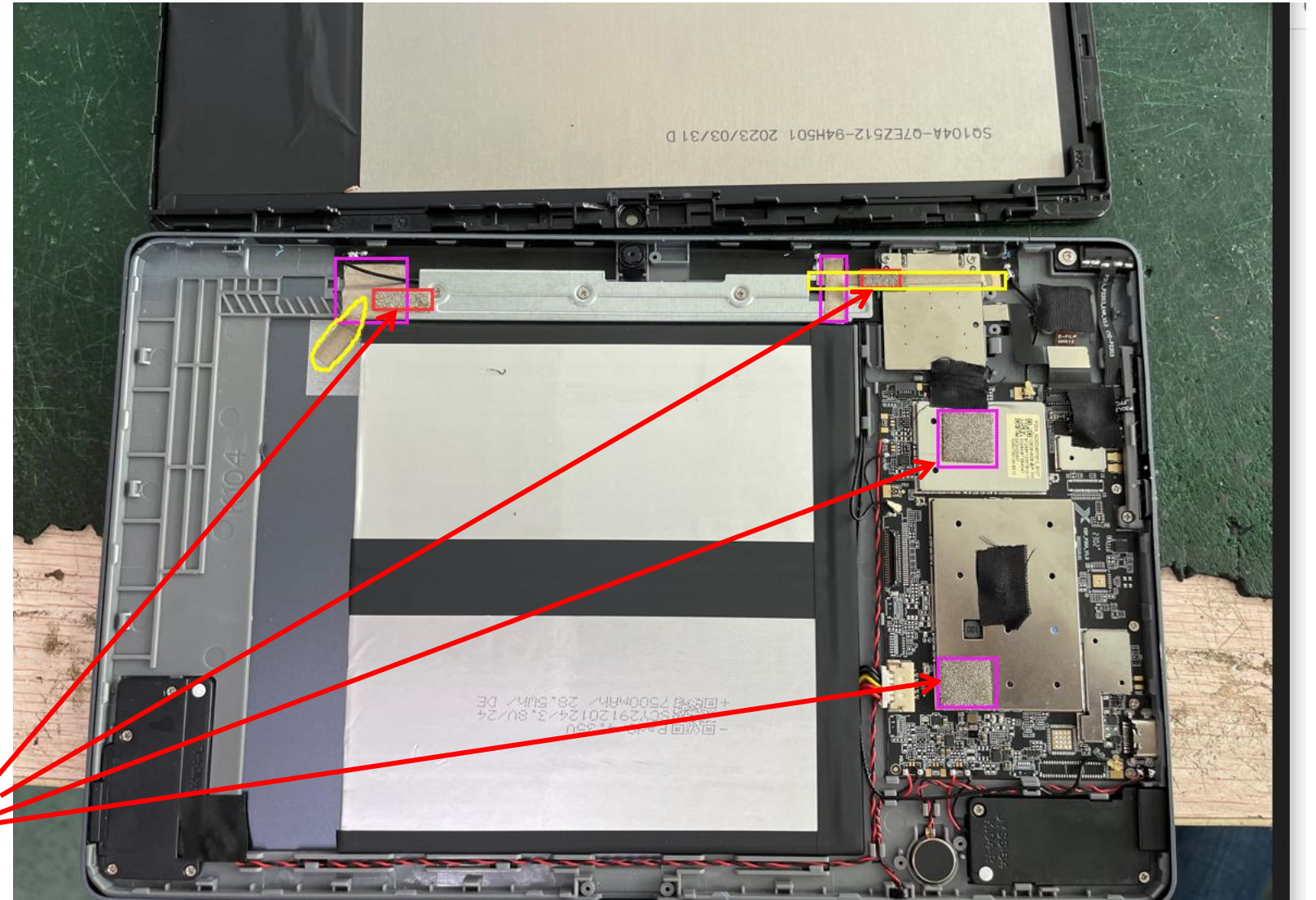
如图所示：3处红色框内主板与锌合金良好接地处理。

如图所示：5处黄色框内贴上高温绝缘胶纸。

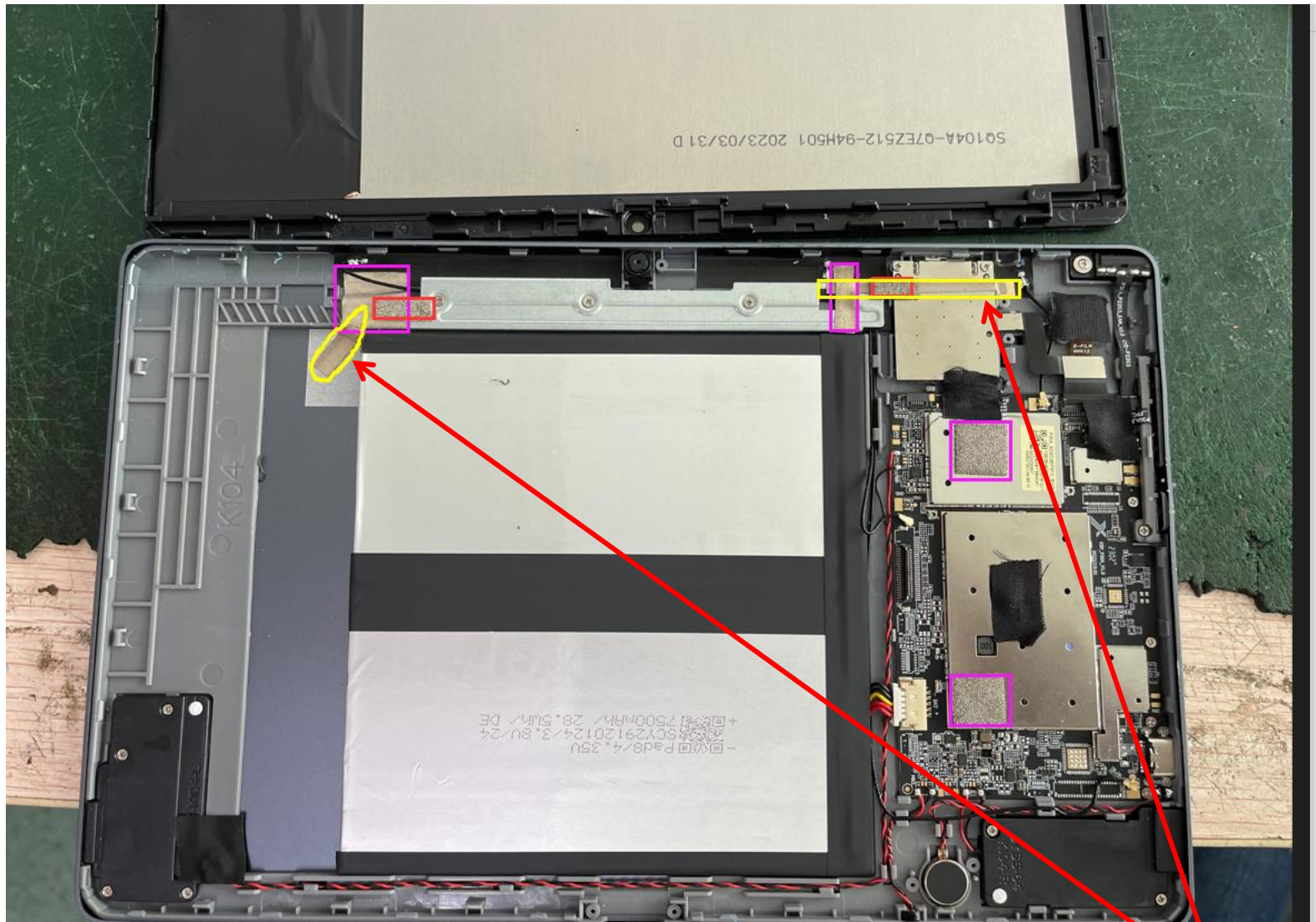


环境处理environmental treatment

如图所示：此4处贴上导电海绵与屏良好接地处理。

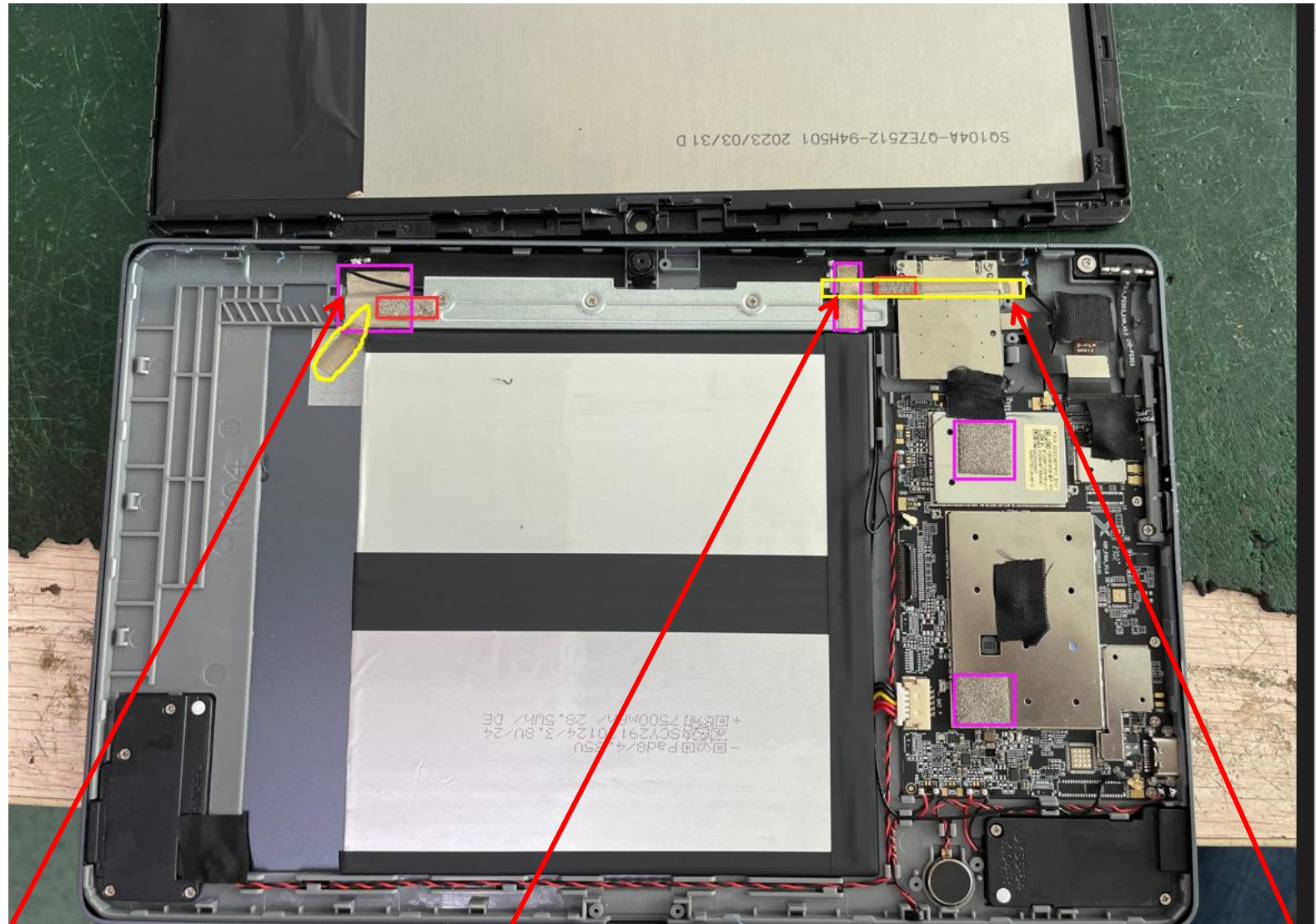


环境处理environmental treatment



如图所示：此2处贴上导电布与金属件良好接地处理。

环境处理environmental treatment



如图所示：主天线此处贴上导电布与金属良好接地处理。

如图所示：三合一此处贴上导电海绵与金属良好接地处理。

如图所示：分集天线此处贴上导电布与金属良好接地处理。

主天线无源报告Passive report of main antenna

Gain&Efficiency		
frequency 频率(MHz)	gain 增益(dBi)	efficiency 效率(%)
700	-6.67	9.72
720	-5.44	13.09
740	-4.11	17.60
760	-2.15	25.15
780	-2.03	27.87
800	-1.68	31.87
820	-2.52	25.62
840	-3.06	24.00
860	-4.45	17.55
880	-5.65	13.37
900	-6.14	11.37
920	-6.76	9.50
940	-7.02	7.78
960	-6.76	7.53

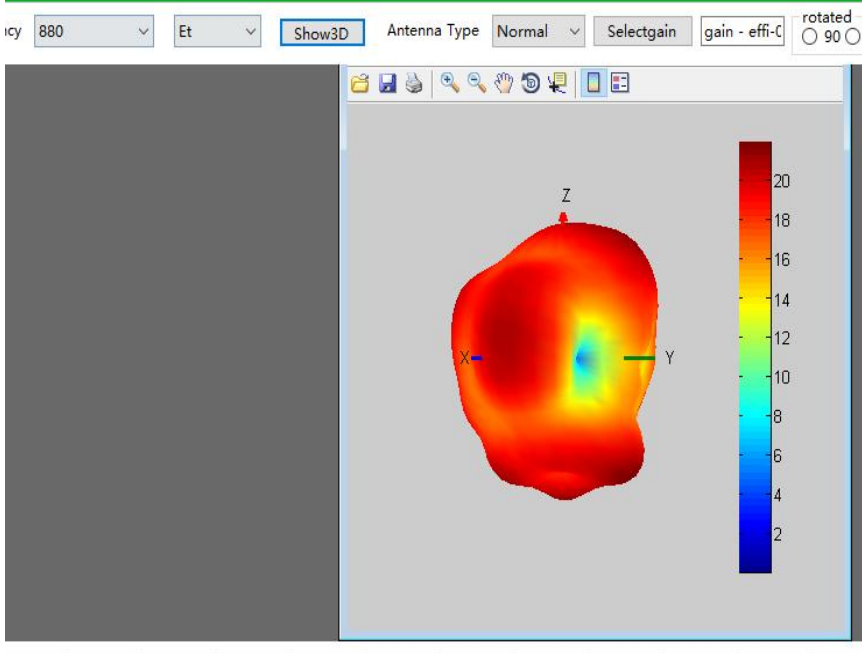
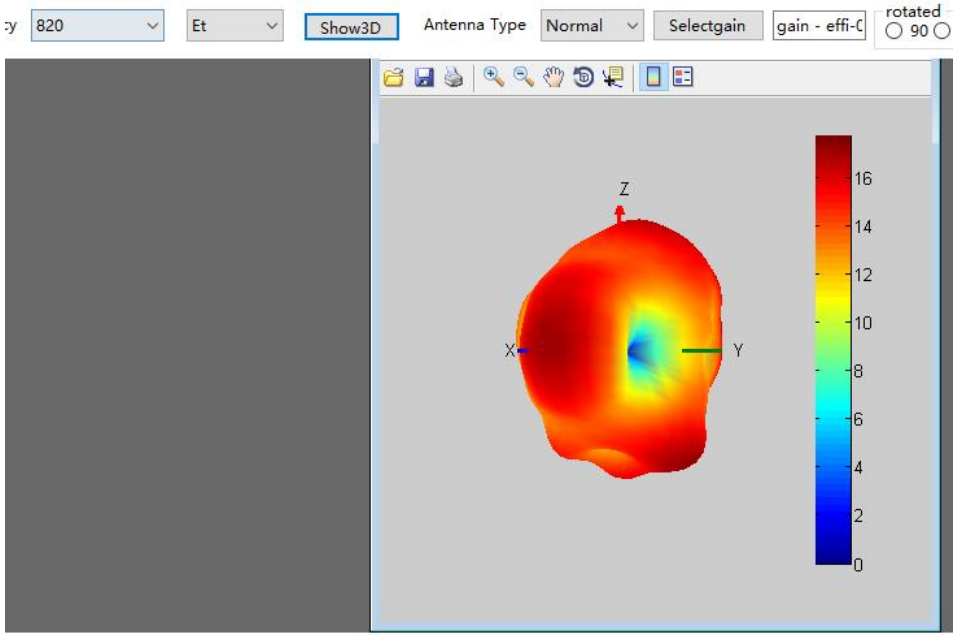
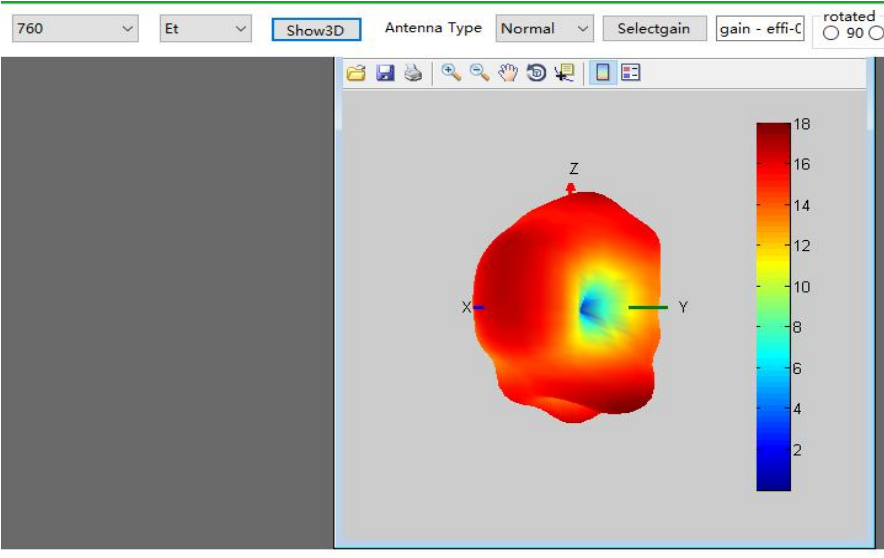
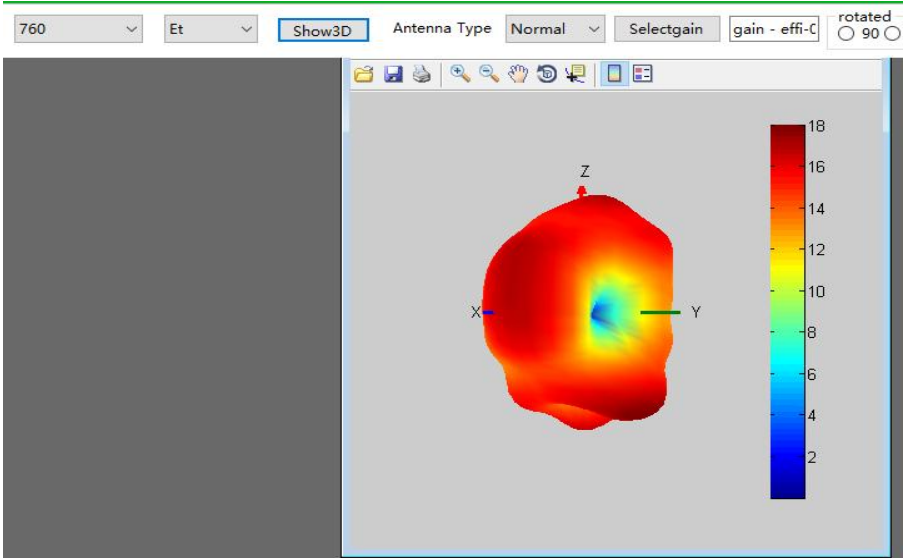
frequency 频率(MHz)	gain 增益(dBi)	efficiency 效率(%)
1700	-2.39	21.44
1720	-2.17	22.09
1740	-2.08	22.90
1760	-1.44	22.39
1780	-0.95	25.09
1800	-0.14	31.85
1820	-0.44	30.01
1840	-0.04	32.57
1860	0.03	31.47
1880	0.33	30.81
1900	0.43	31.00
1920	0.57	33.92
1940	0.51	32.82
1960	0.98	34.15

frequency 频率(MHz)	gain 增益(dBi)	efficiency 效率(%)
1980	1.25	35.66
2000	0.96	33.18
2020	0.44	30.45
2040	0.75	32.95
2060	0.24	30.67
2080	0.56	31.63
2100	0.82	31.85
2120	0.5	28.77
2140	-0.06	26.60
2160	-0.91	25.75
2180	-0.42	27.65
2200	0.47	30.49
2220	0.38	31.00
2240	0.43	31.44

frequency 频率(MHz)	gain 增益(dBi)	efficiency 效率(%)
2260	0.74	31.39
2280	-0.01	29.84
2300	-0.13	28.86
2320	-0.01	27.97
2340	-0.89	25.29
2360	-0.63	26.27
2380	-1.12	24.99
2400	-0.23	27.97
2420	0.04	29.26
2440	-0.03	29.25
2460	0.25	31.03
2480	0.54	32.65
2500	1.08	34.58
2520	1.34	35.31

frequency 频率(MHz)	gain 增益(dBi)	efficiency 效率(%)
2540	0.51	34.35
2560	0.54	36.35
2580	0.92	38.41
2600	1.22	38.15
2620	1.66	42.25
2640	2.56	44.95
2660	3.05	46.74
2680	3.44	50.88
2700	3.73	50.07

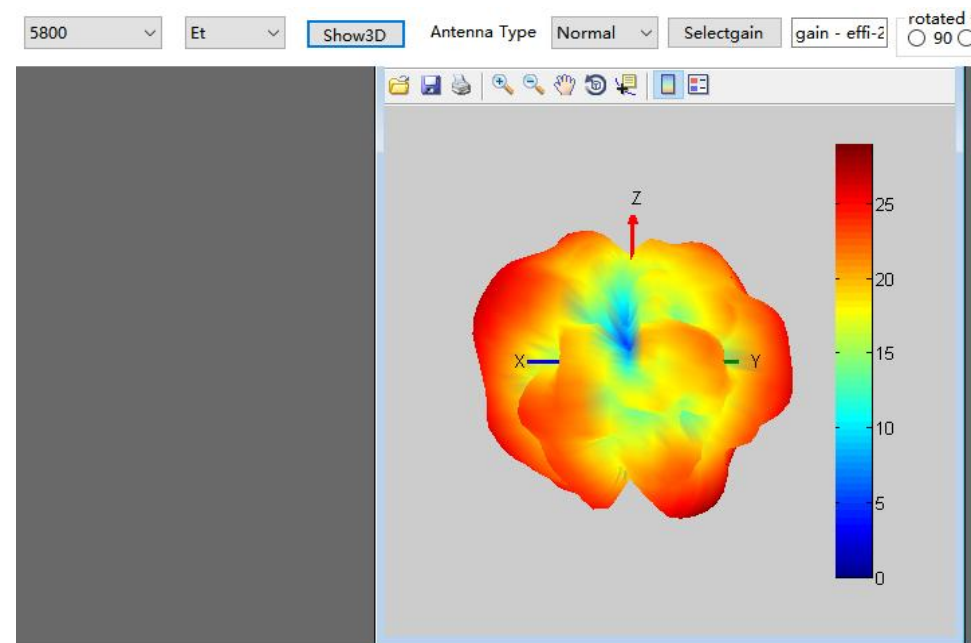
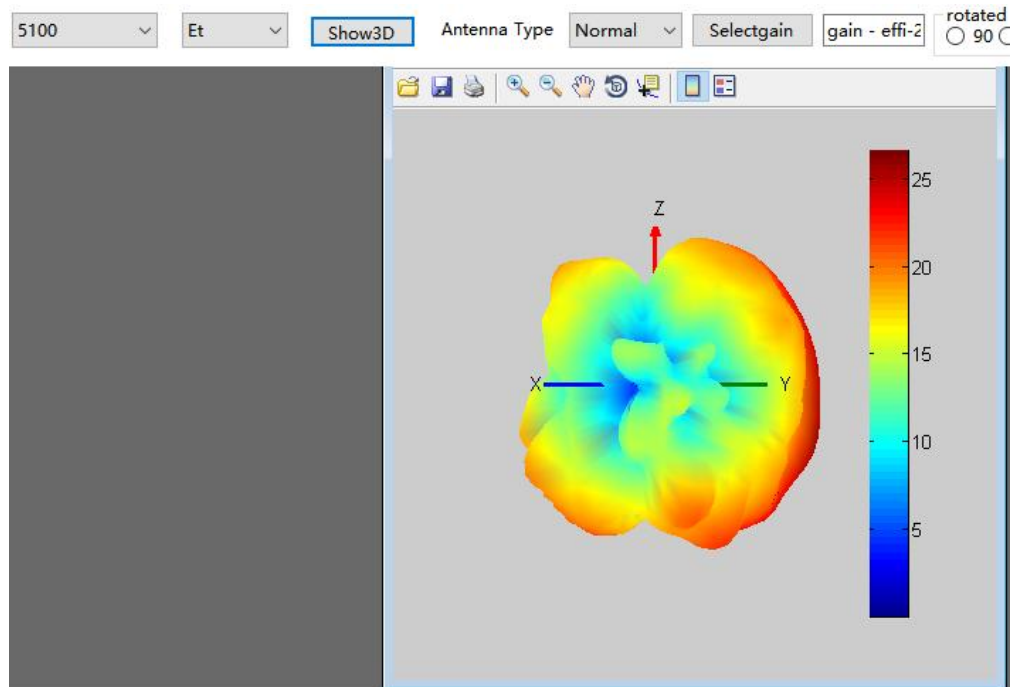
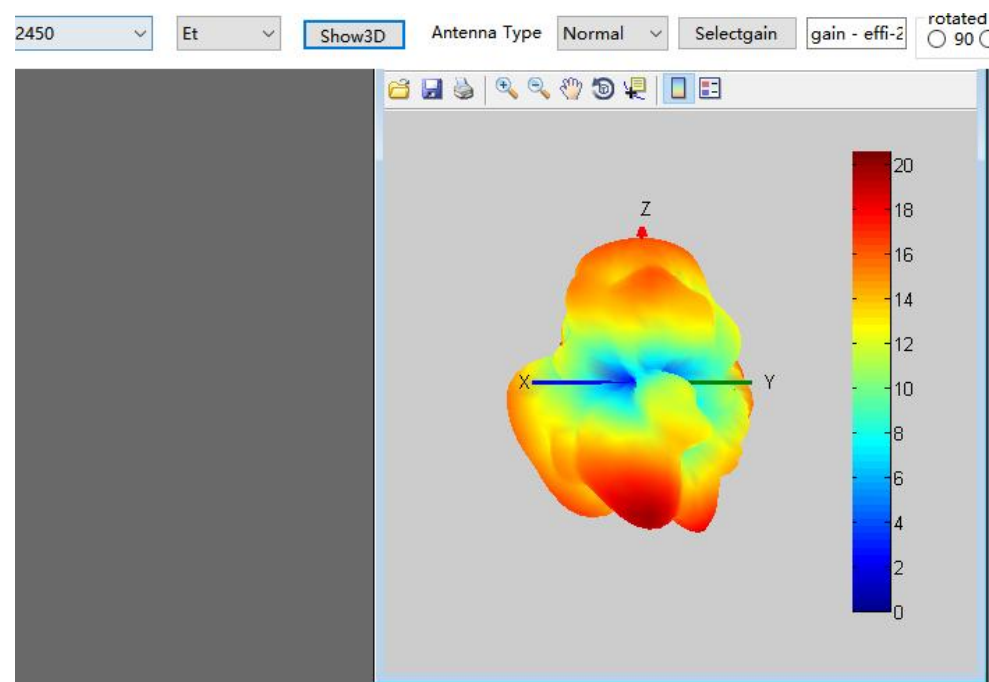
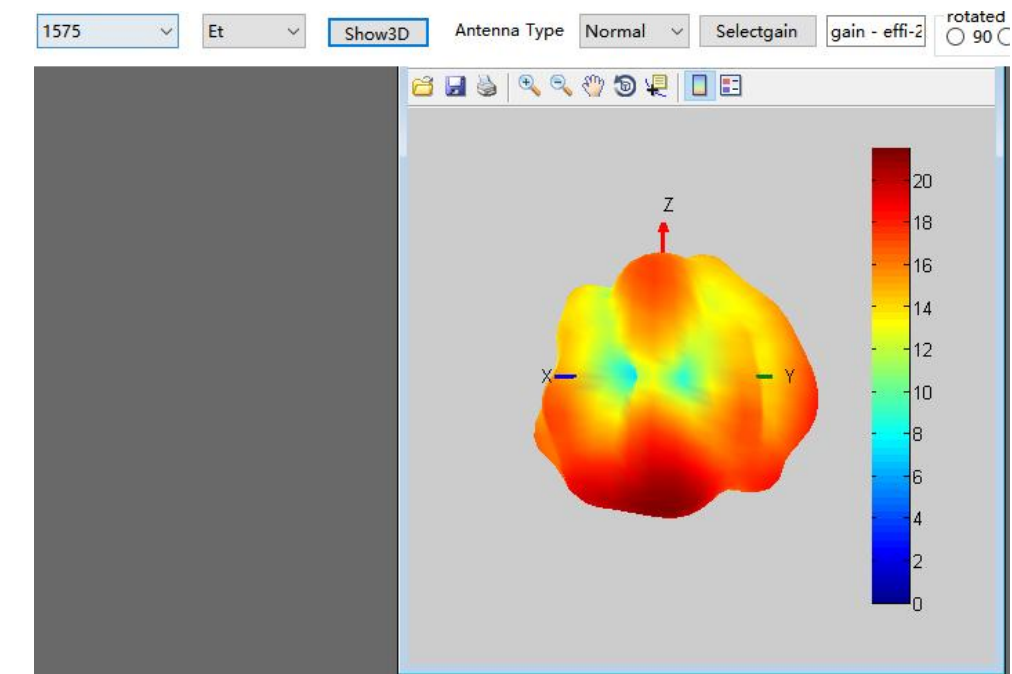
主天线苹果图Main antenna apple diagram



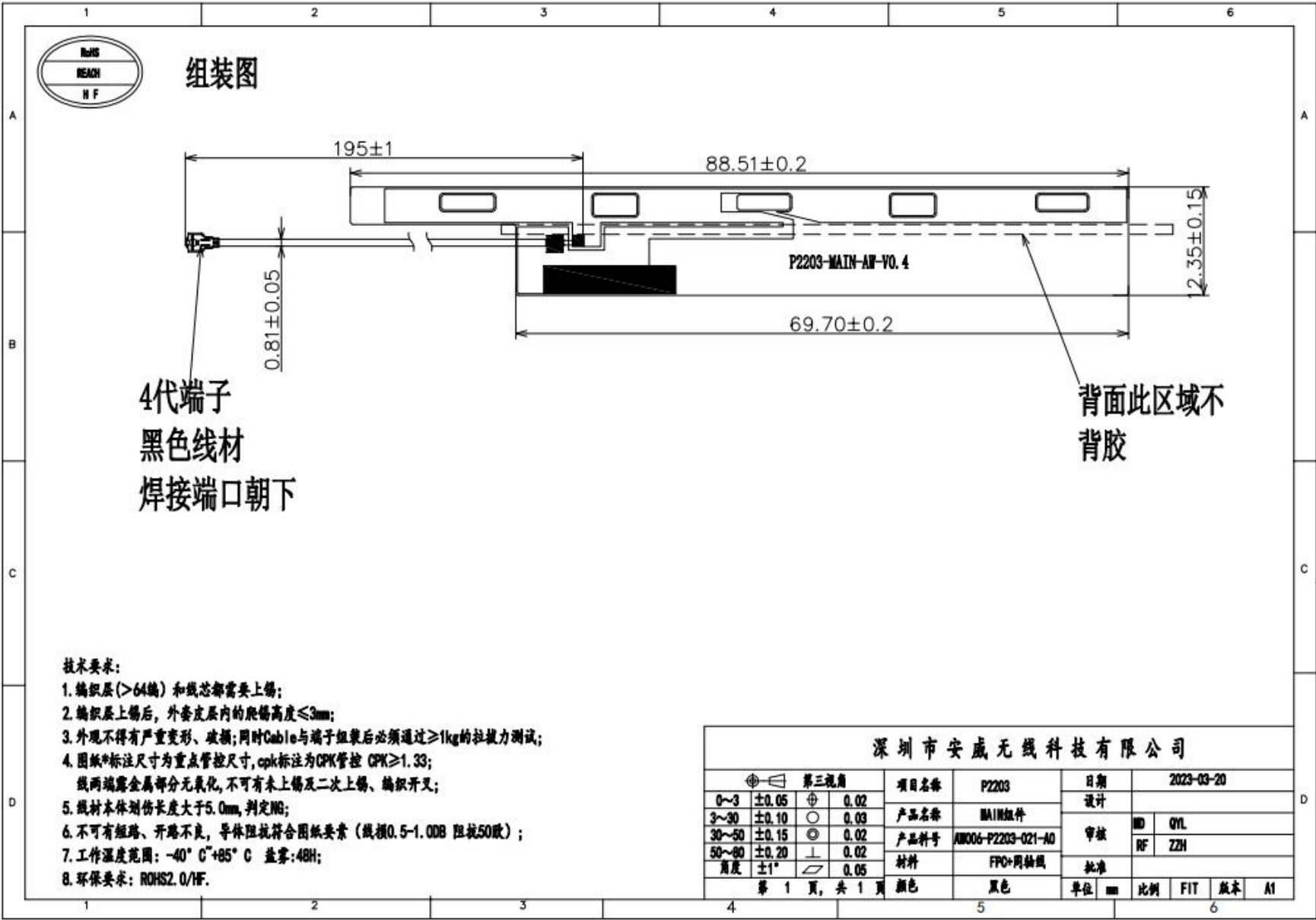
GPS/WIFI/BT无源报告Passive Data

Gain&Efficiency					
frequency 频率(MHz)	gain 增益(dBi)	efficiency 效率(%)			
1570	3.28	42.78			
1575	3.13	40.33			
1580	2.95	39.19			
2400	1.59	38.43			
2450	1.07	30.77			
2500	1.12	28.96			
5100	4.96	44.69			
5200	6.26	55.03			
5300	4.89	47.75			
5400	4.56	47.61			
5500	4.56	56.30			
5600	3.53	52.84			
5700	4.36	63.94			
5800	4.58	72.23			
Horizontal					

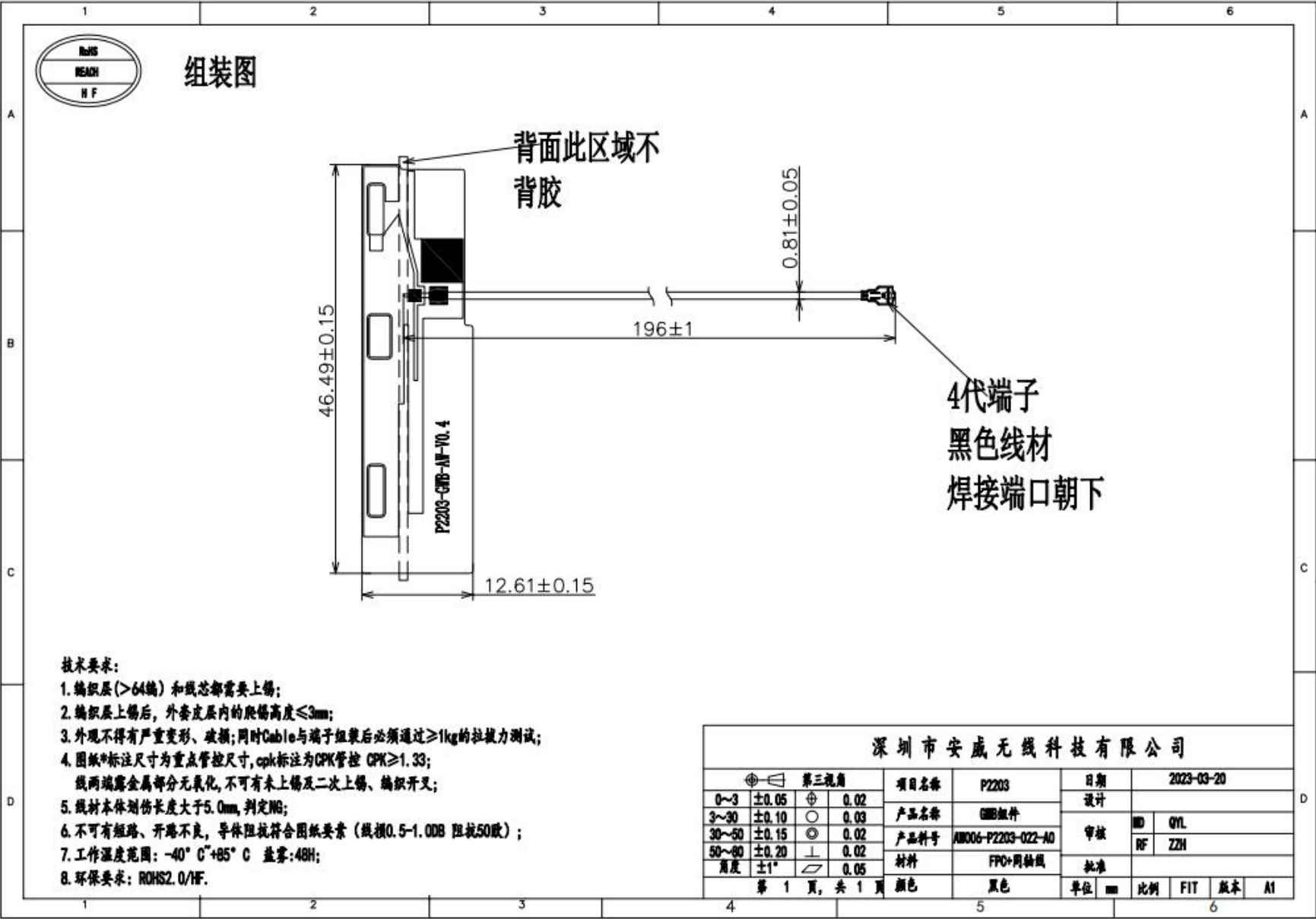
三合一苹果图Three in One Apple Chart



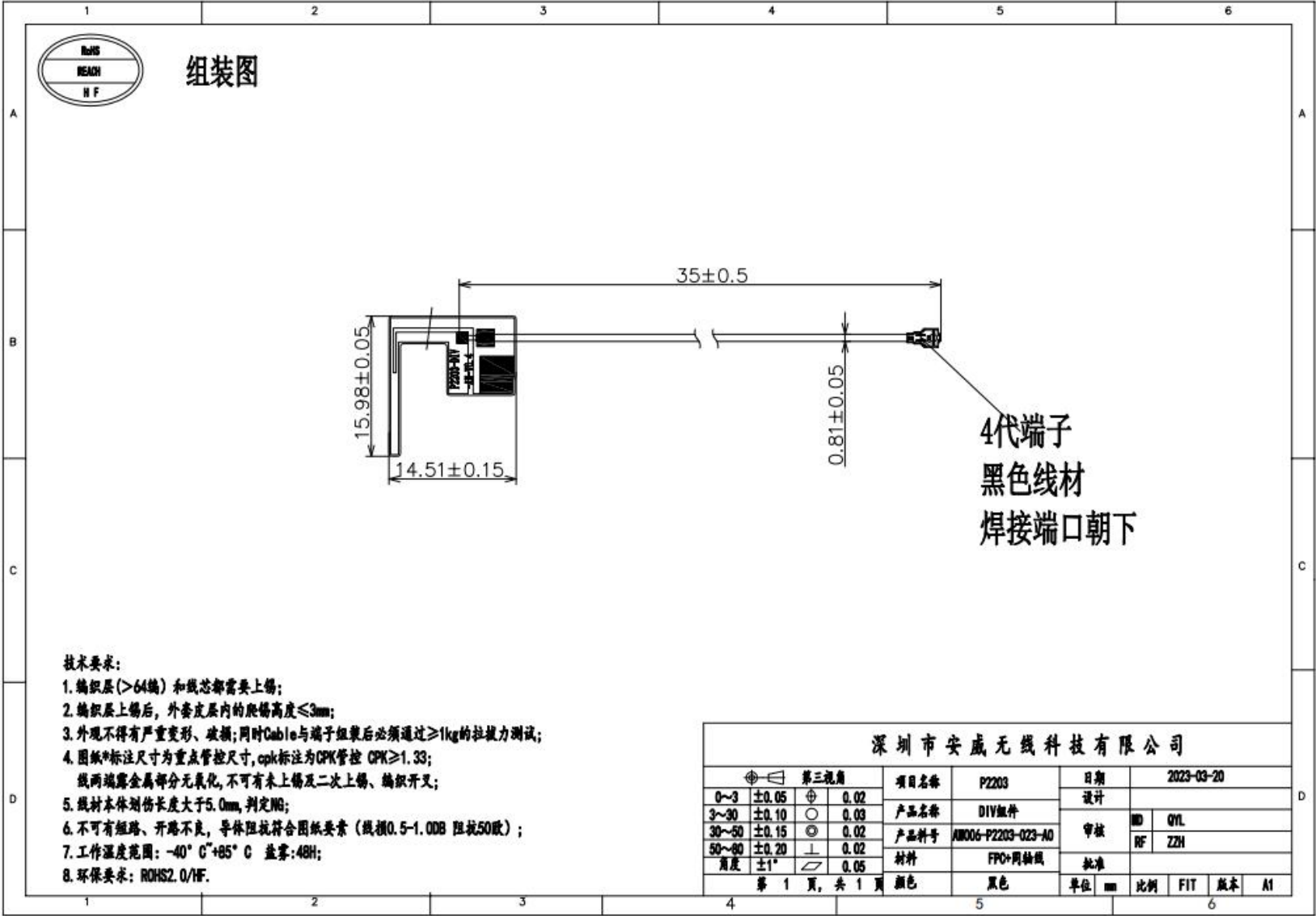
天线尺寸示意图Antenna size diagram



天线尺寸示意图Antenna size diagram



天线尺寸示意图Antenna size diagram



附加说明 Additional instructions

-  请仔细确认报告中提到的匹配电路是否修改、以及环境处理是否导入，这将直接影响天线性能。
Please carefully confirm whether the matching circuit mentioned in the report is modified and whether the environmental treatment is imported, which will directly affect the antenna performance.
-  本报告所提供的参数仅为客户给到我司调测样机的参数，不代表贵司最终项目的最终量产状态。
The parameters provided in this report are only those provided by the customer to our company for testing the prototype, and do not represent the final mass production status of your company's final project.
-  倘若贵司有最新试产、或者更新状态（更换物料、更新软件、更换环境处理等）的样机，请尽快交由我司进行验证，以确认天线性能是否受到影响。
If your company has a prototype with the latest trial production or updated status (changing materials, updating software, changing environmental treatment, etc.), please submit it to our company for verification as soon as possible to confirm whether the antenna performance is affected
-  倘若贵司需要送往第三方复测或者送往客户测试，请务必将需要测试的机器交由我司进行测试确认，因为主板的一致性、装配的一致性，以及天线组装差异等因素，均可能导致天线参数的偏差。
If your company needs to send the machine to a third party for retest or to a customer for testing, please be sure to submit the machine to be tested to our company for testing and confirmation, because the consistency of the motherboard, the consistency of the assembly, and the difference in the antenna assembly and other factors may lead to the deviation of the antenna parameters.

